

**TORK**<sup>®</sup>  
valve & automation  
*high quality*

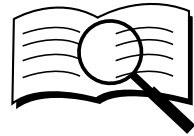
**Gaz Alarm Cihazı**  
Doğalgaz, metan, LPG, butan, propan gibi patlayıcı gazları algılar.  
A tipi (alarm ve kontak çıkışı) bir cihazdır. Tahmini cihaz ömrü 5 yıldır.  
**Alarm Durumunda:**  
Elektirik düğmelerine dokunmayın, hiçbir elektrikli cihazı açmayın  
kapatmayın, çıkmak veya kibrit kullanmayın. Gaz vanalarını kapatın.  
Ortamı havalandırın. Alarm yokken gaz kokusu alırsanız, alarmı  
beklemeden yukarıdaki önlemleri almalısınız.



## TORK GA 10 TYPE GAS ALARM DEVICE USER MANUAL



SMS SANAYİ MALZEMELERİ ÜRETİM VE SATIŞI A.Ş.



Read the instructions before use

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## OPERATING PRINCIPLE

Gas alarm device is a gadget detecting the explosive gasses in environment. Ingredients of the detected gasses can be one of these gasses; methane (CH<sub>4</sub>), propane (C<sub>3</sub>H<sub>8</sub>) and butane (C<sub>4</sub>H<sub>10</sub>) or mixture of these gasses.

Natural gas is methane gas. LPG is made of butane gas, propane gas or mixture of these two gasses. When the gas alarm device is supplied with 230V AC 50/60Hz voltage, green LED lights. After 1.5 minutes calibrating time (sensor's heating time), device gets active. Before calibrating time is up, don't use any testing gas. After calibrating time, if there is any gas leakage over the limits, the sensor detects the gas in 10 seconds at the latest and gives visual and audible alarm. As long as the gas leakage is upper levels, device goes on to giving alarm.

When the leakage level is lower than alarm level, device change to normal condition instinctively, gets ready to detect. If there is no electricity, device does not work. If closing the gas valve or aspirating the gas is wanted when the alarm condition, the output relay of the gas alarm device can be used for it. From the output 230V AC voltage and current lower form 7A can be supplied.

## BASIC INFORMATION

Gas alarm device is designed for alerting if there is any leakage of LPG or natural gas on household and similar appliances. It's a continuous working and installed on constant place device. Because of its relay output other devices like solenoid valve, aspirator, siren etc. can be controlled.

The minimum concentration of a particular combustible gas or vapor necessary to support its combustion in air is defined as the Lower Explosive Limit (LEL) for that gas. LEL value of natural gas is %5 and LPG's LEL value is %2. Before LEL values not reaching these levels' one fifth, gas alarm device detects the leakage and gives alarm.

- Alarm level for natural gas is % 0.5 or 5000ppm (parts per million).

- Alarm level for LPG is %0.3 or 3000ppm (parts per million).

## TEKNİK ÖZELLİKLER

Detecting Gasses :	Natural Gas(methane), LPG(Liquefied Petroleum Gas)
Device Type:	A type(Visual alarm, audible alarm and output signal)
Visual Warning:	Green-System Active, Red-Alarm, Yellow-Fault
Sensor Type:	Semiconductor ( 5V±0,1)
Main Body Material:	ABS
Calibration Time:	1,5 minutes
Reaction Time:	<10 seconds
Audible Warning:	Piezoelectric Buzzer
Volume:	85dB
Operating Voltage:	230VAC +- %10, 50/60Hz
Output Signal(Relay Contact):	230V AC 7A NO
Power Consumption:	3W
Operating Area:	Household and similar electrical appliances
Operating Temperature:	-10°C....+50°C
Relative Humidity:	0-95%
Main Body Dimensions:	60mm x 100mm x 45mm
Estimated Device Life:	5 years

Reference Standards: EN 50194-1, EN 60335-1, EN 60079-29-1, EN 50244

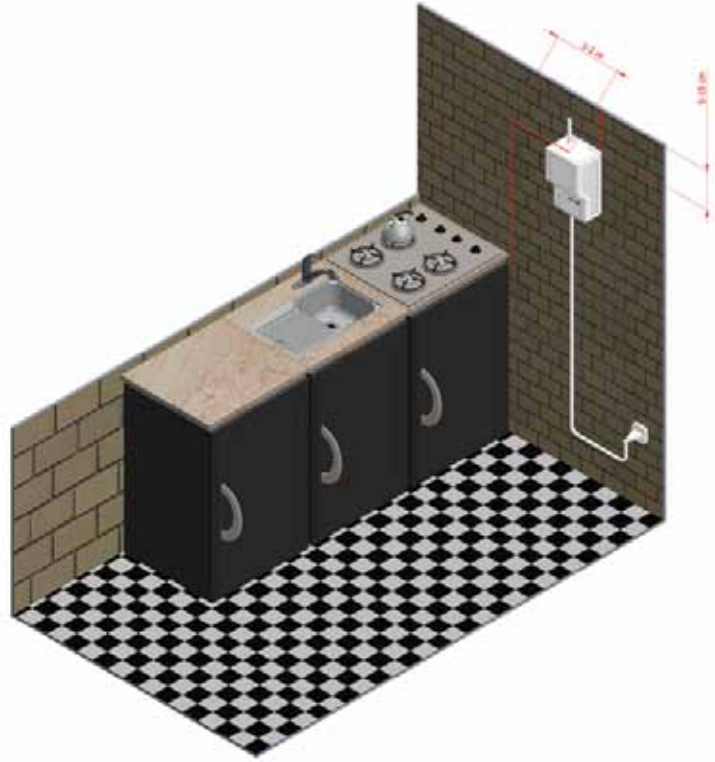
Table 1. Technical specifications.

## MOUNTING

Device must be mounted like in the Fig 1 and Fig 2



**DEVICE MUST BE MOUNTED BY AN EXPERT!**

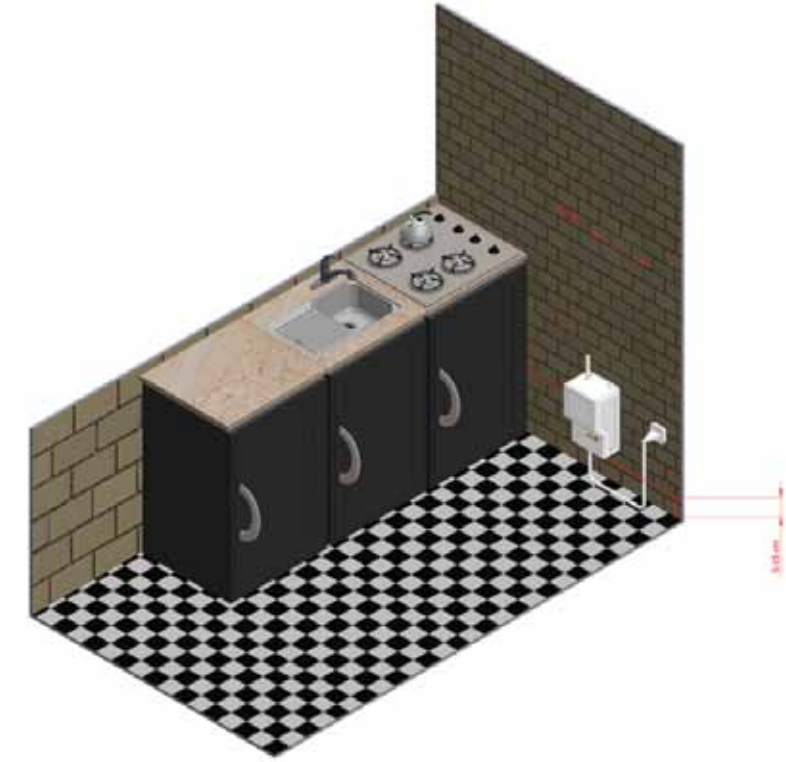


**Fig 1:** Fig 1. Installation of Gas Alarm Device for Natural Gas Appliances.



### Natural Gas

Natural gas is lighter than air. During the leakage natural gas rises up to ceiling and gathers there. So gas alarm sensor must be mounted 5-15cm down from ceiling and projective 1-2m away from leakage supply. This place must be higher than the highest door or window opening.



**Fig 2:** Installation of Gas Alarm Device for LPG Appliances.



### LPG

LPG is heavier than air. During the leakage LPG goes down and spread to floor. So gas alarm sensor must be mounted 15-25cm higher from the floor and projective 1-2m away from leakage supply. This place must be away from doors or windows.

## Parallel (Multi) Mounting

Collecting more than one gas alarm device's output signals and connect to devices wanted to control automatically, is parallel mounting. You can use the Fig 4 for parallel mounting.

## Single Electrical Connection

This installation is done when only one device will be mounted.

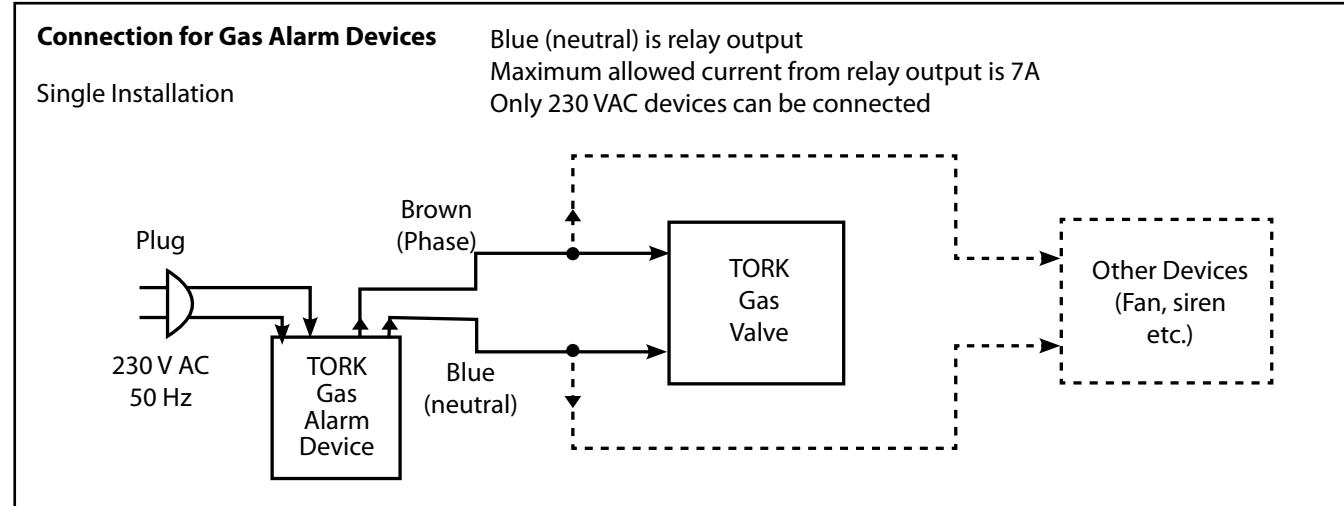


Fig 3. Single Electrical Connection of Gas Alarm Device

## Multi Electrical Connection

This installation is done when more than one device will be mounted.

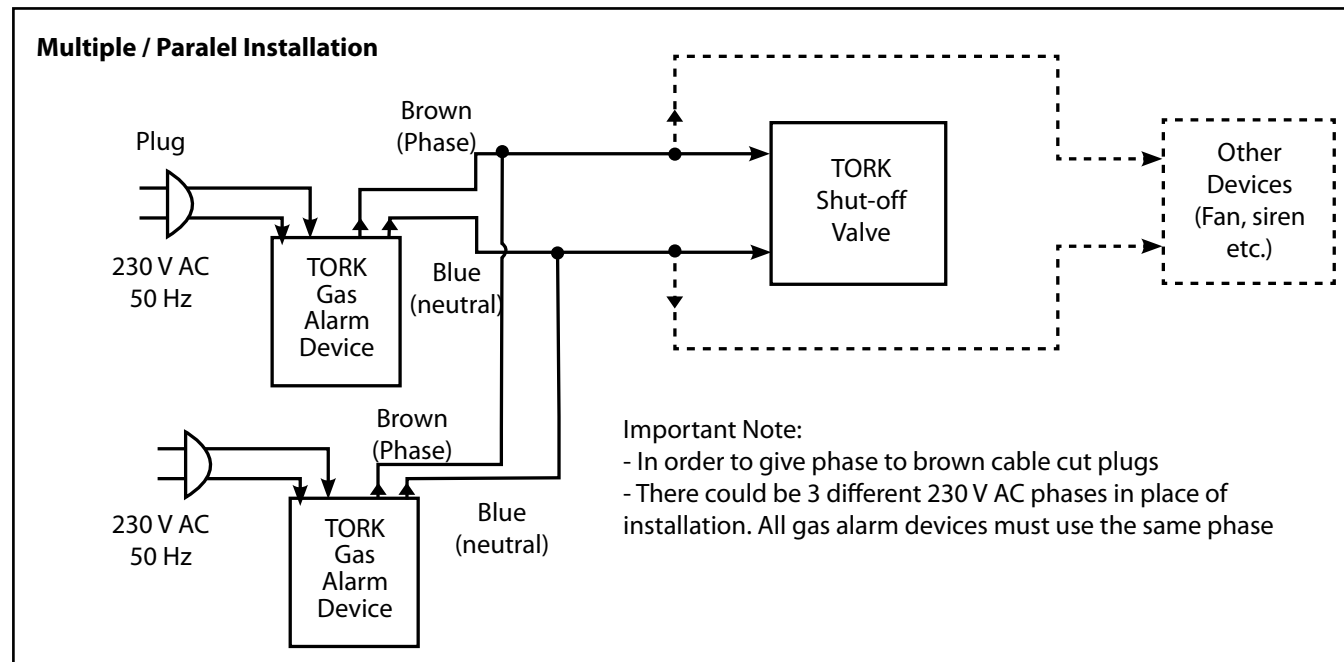


Fig 4. Multi Electrical Connection of Gas Alarm Devices

## Mounting Warnings



**Device must not be mounted to these places below!**

- Over to the stoves.
- Over to the cowls.
- Near to the aspirators.
- Closed places like cabins.
- Steamy places.
- Too hot places. The sensor works up to 50 °C ambient temperature. Don't mount the sensor hotter places than this ambient temperature.

Don't put any stuff in front of the sensor, prevent from blocking the sensor.

One gas alarm sensor can protect 50m2 area. For separated areas, even if a small wall, must be used different gas alarm sensors.

## WARNINGS

During the alarm condition actions be taken are below.

- Calm down.
- Don't use any electric device. Don't on or off any of them.
- Don't plug, unplug any electric device.
- By opening doors and windows, ventilate the area.
- Don't use any matches and lighter.
- Don't use the door bell. Never let anybody use it.
- Close the gas valve starting with the nearest one.
- According to flame risk don't use any mobile phone or walky talky.
- Get contact with the expert gas distribution company in proper place.
- If there is any fire deflate it.

If there is a flaming on natural gas, it is useless, also dangerous that trying to deflate the flame without closing the valve. If you smell the gas without alarm, follow the warnings up without waiting the alarm. Despite to preventions, if gas alarm goes on and the alarm reason can't be found, empty out the area. To check the fittings, to make them safe and to required repair get in contact with the gas distributor company or get in contact with 7/24 accessible natural gas emergency.



If the gas concentration decrease the under the alarm level, alarm sound will be cut off instinctively.

- Alcohol and such as stuff steams, sprays, high density smoke, lighter gas, pungent cleaning materials can confuse the gas alarm sensor and reason wrong alarm.
- Device's main body must not be opened. Otherwise there can be a shock and device can work irregular.
- If relay output cable will not be used, don't open the isolation on its ending.
- During operation the operating conditions must be exactly followed, like technical specifications, operating temperature and pressure.
- Before the installation, control the device whether any damage on it. Before the giving energy to the device control all the installation.

## MAINTENANCE

The device must be controlled once in a year at least. For testing, don't release the gas to all of the area. Otherwise it can be dangerous. The main body and gas sensor must be cleaned with a soft cloth or brush and non alcoholic cleaning materials.

## TROUBLESHOOTING

If too many current pass from the output more than the limits, the output of the device can be damaged. In these conditions device must be send to the authorized service. This condition is not under warranty cover.

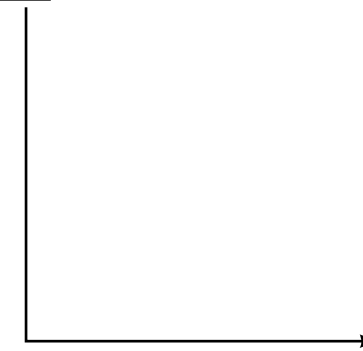
If YELLOW LED lights the sensor is faulted and the device must be send to the authorized service.

## CARRYING

Device must be carried with its own carton box. During the carrying too many weight as damaging the device, must not be put on the device's box.

## HOW TO ORDER

### GA 10



10	Standard Gas Alarm Device
12	Dry Contact Gas Alarm Device
20*	Gas Alarm Device with Ex Proof Sensor Housing
21	Metal Body Ex proof Gas Alarm Device
22*	Dry Contact Gas Alarm Device with Ex Proof Sensor Housing

\* GA 20 and GA22 series Gas Alarm Devices are used with only GL.01 Ex Proof Sensor Housing.

### FIRM INFORMATIONS

SMS SANAYİ MALZEMELERİ  
ÜRETİM VE SATIŞI A.Ş.

Y. Dudullu, Bostancı Yolu Kuru Sk. No:16  
Ümraniye 34776 İstanbul Turkey  
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Faks: +90-216 364 37 57  
e-posta: tork@sms-tork.com.tr  
www.sms-tork.com.tr / www.sms-tork.com

### PRODUCER FIRM

Tasarım Elektronik ve LED Aydınlatma

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Kocaeli Turkey  
Tel: +90-262 655 90 94  
Fax: +90-262 655 84 02  
info@tasarim-elektronik.com



**T.R. MINISTRY OF INDUSTRY AND COMMERCE CONSUMER AND  
COMPETITION PROTECTION GENERAL DIRECTORATE****Issue Date and Number:** 28.11.2013-41513**Date of Validity:** 28.11.2015

In the usage of this document it permitted, according to the law about Protection of Consumer with number 4077; and as regards implemented regulations, Regulations of Guarantee Certificate Application Principles, according to this law, by T.R. Ministry of Industry and Commerce Consumer and Competition Protection General Directorate.

**Producer and Importer Firm's**

Name	: SMS SANAYI MALZEMELERİ ÜRETİM VE SATIŞI A.Ş.
Central Address	: Y. Dudullu, Bostancı Yolu Kuru Sk. No: 16, 34776 Ümraniye İstanbul-TURKEY
Tel	: 0216 364 34 05
Fax	: 0216 364 37 57
Type of Product	: Gas Alarm Device
Brand Name	: TORK
Cost	:
Banderol and Serial No	:
Delivery Date and Place	:
Warranty Period	: 2 Years
Minimum Repair Period	: 20 Workdays
Name of Seller Firm	:
Address	:
Tel	:
Fax	:
Date and Number of Bill	:

PETEK ECE TİRYAKİOĞLU  
In the Name of Ministry.  
VICE GEN. DIRECT

This document can be justified from [www.tuketici.gov.tr](http://www.tuketici.gov.tr) internet address.

**WARRANTY CONDITIONS**

1. If there is a fault caused by the production, the manufacturer will repair or replace the defective product in its sole discretion.
2. The warranty period is two (2) years and starts from the date of delivery of the product to consumers.
3. All products, including all sub-parts, covered by our warranty.
4. The maximum repair time is one (1) month and starts from the products' arrival date to SMS factory.
5. Within the warranty period, both in material and workmanship, as well as in case of manufacturing defects, products will be repaired without any charge under any name (labor costs, or the cost of replaced parts).
6. During the warranty period, provided that the products will be exchanged free of charge if the fault is sourced by production.
7. Damages caused by the using of the product contrary to the points listed in the operating instructions are excluded from warranty coverage.
8. If there are complaints about the product please contact customer relations manager firstly.
9. For return or repair-maintenance of products send them to the factory to the customer relations department.
10. If products come to the factory, it doesn't mean acceptance of return and received by officers. Returns accepted, with the approval of the examination will be only after the relevant department managers.
11. Consult to General Directorate of Consumer and Competition Protection of the Ministry Industry and Commerce of Turkey about the issues may arise with warranty certificate.

**EXCLUSIONS OF WARRANTY (USAGE DEFECTS)**

1. Malfunctions occurring after the expiration of the statutory warranty,
2. The faults caused by improper use of the product by the user, (improper using to the instruction manual),
3. Any relevant malfunctions caused by other equipment in use,
4. Changes and damages not caused by the product manufacturer; for example, the case of the opening of the product by not authorized workshops,
5. All failures depend on the system (electricity, air, etc),
6. Failures depend on the intervention of unauthorized service,
7. Products with damaged or destroyed warranty label,
8. In case of damage to outer surface of the product,
9. The faults in the caused by falling, hit, etc,
10. Faults occurred on dusty, damp, extreme heat or cold environments,
11. Faults caused by natural disasters such as flood, fire, earthquake, lightning, etc,
12. Faults caused by electrostatic discharge (ESD) damage.



## WARRANTY CERTIFICATE

**Manufacturer** : SMS SANAYİ MALZEMELERİ ÜRETİM VE SATIŞI A.Ş.

**Adres** : Head Office: Bostancı Yolu Kuru Sokak No:16 Yukarı Dudullu  
34776 Ümraniye İstanbul TURKEY  
Tel: +90 216 364 34 05 Fax: +90 216 364 37 57  
Plant: İMES OSB. 5. Cadde No: 6 Çerkeşli OSB Mah. Dilovası Kocaeli TURKEY  
Tel: +90 262 290 20 20 Fax: +90 262 290 20 21

Product : GAS ALARM DEVICE

Trade Mark :TORK

Model :

Serial Number : .....

Delivery Place & Date : .....

Warranty Period : 2 Years

Max. Repair Time : 20 working days

Seller / Distributor : .....

Address : .....

**Manufacturer Representative**

Name / Surname: Emre UZUN

Title: Quality Manager

Date: 23.12.2013

Signature:

**Seller / Distrubutor Representative**

Name / Surname:

Title:

Date:

Signature:



# **GAS ALARM DEVICE USER MANUAL**

## GA 10 SERIES



**SMS SANAYİ MALZEMELERİ ÜRETİM VE SATIŞI A.Ş.**

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Tel: +90 (216) 364 34 05 (pbx) Fax: +90 (216) 364 37 57 [export@sms-tork.com](mailto:export@sms-tork.com) [www.sms-tork.com.tr](http://www.sms-tork.com.tr)

**Factory:** İMES O.S.B. 5. Cad. No: 6 Çerkeşli OSB Mah. Dilovası - Kocaeli - Turkey  
Tel: +90 (262) 290 20 20 Fax: +90 (262) 290 20 21





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KENYA  
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NİJERYA

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DOMİNİK CUMHURİYETİ  
KANADA  
KOLOMBİYA  
PERU  
ŞİLİ

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Solenoid Valf



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Prömatik Piston Vana



Limit Switch Kutusu



Prömatik Aktüatörlü Vana



Elektrik aktüatörlü Vana



Debi Ölçü Kontrol



Basınç Ölçü Kontrol



Seviye Ölçü Kontrol



Sıcaklık Ölçü Kontrol

